

CLAIMS

WHAT IS CLAIMED IS:

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1. A system for providing communications network access via an electrical network of a building, comprising:

a host unit disposed inside the building and having a first interface and a second interface, the first interface being coupled to the communications network, the second interface being coupled to a electrical socket of the building, the electrical socket being coupled to the electrical network of the building; and

a subscriber unit disposed inside the building and having a first interface that is coupled to the electrical network,

wherein the subscriber unit is in communications with the communications network via the electrical network.

2. The system according to claim 1, wherein the communications network is an internet or a telecommunications network.

3. The system according to claim 1, wherein the second interface of the host unit includes a single-phase-plus-neutral electrical interface.

4. The system according to claim 1, wherein the second interface of the host unit includes a three-phase-plus-neutral electrical interface.

5. The system according to claim 1, wherein the second interface of the host unit is plugged into the electrical socket.

6. The system according to claim 1, wherein the first interface of the host unit includes at least one of a multimode fiber interface, a single-mode fiber interface, a universal serial bus (USB) interface and an ethernet interface.

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7. The system according to claim 6, wherein the ethernet interface includes at least one of IEEE 802.3 interface, 10BaseT interface, 100BaseT interface, 10BaseFL interface and a 100BaseFX interface.

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8. The system according to claim 1, wherein the first interface of the subscriber unit is plugged into a second electrical socket of the building.

9. The system according to claim 1, wherein the subscriber unit is in communications with the communications network via the first interface of the subscriber unit, the electrical network and the host unit.

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10. The system according to claim 1, further comprising:
a computer coupled to a second interface of the subscriber unit,
wherein the computer is in communications with the communications network via
the electrical network of the building.

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11. The system according to claim 1,
wherein the subscriber unit includes a first subscriber unit and a second subscriber
unit, the first subscriber unit being coupled to the electrical network at a first part of the
electrical network, the second subscriber unit being coupled to the electrical network at a
second part of the electrical network, and

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wherein the first subscriber unit is in communications with the second subscriber unit
via the electrical network.

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12. The system according to claim 11, wherein the host unit passes data packets
between the first subscriber unit and the second subscriber unit.

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13. The system according to claim 11,
wherein the first subscriber unit is in communications with the communications
network via the electrical network, and
wherein the host unit passes data packets between the communications network and
the first subscriber unit.

14. The system according to claim 13, wherein the communications network is an internet or telecommunications network.

15. The system according to claim 1,
5 wherein the building is a multi-level building, and
wherein the subscriber unit is a plurality of subscriber units disposed through the multi-level building.

16. A system for accessing an internet via an electrical network of a building,
10 comprising:

a host unit disposed in a first building unit of the building, the host unit being plugged into the electrical network via an electrical socket of the first building unit and being coupled to the internet via a high-speed connection; and

15 a first subscriber unit disposed in a second building unit of the building, the first subscriber unit being coupled to the electrical network via an electrical interface of the second building unit,

wherein the host unit passes packets of information between the first subscriber unit and the internet via the electrical network.

20 17. The system according to claim 16, wherein the first subscriber unit is plugged into the electrical network via an electrical socket of the second building unit.

18. The system according to claim 16, further comprising:

a second subscriber unit disposed in a third building unit of the building, the second subscriber unit being coupled to the electrical network via an electrical interface of the third building unit,

5 wherein the host unit passes packets of information between the first subscriber unit and the second subscriber unit via the electrical network.

19. The system according to claim 18,

wherein the building is a multi-floor building, and

10 wherein the first subscriber unit and the second subscriber unit are on different floors.

20. The system according to claim 1, wherein the host unit includes a plurality of host units.

15 21. A system for providing communications network access transparently over an electrical network of a building, comprising:

two or more host units disposed inside the building, each host unit having a first interface and a second interface, each first interface being coupled to the communications network, each second interface being coupled to a respective electrical socket of the building,
20 the respective electrical sockets being coupled to the electrical network of the building; and
one or more subscribers unit disposed inside the building, each subscriber unit having a first interface that is coupled to the electrical network,

wherein each subscriber unit is in communications with the communications network via the electrical network.

22. The system according to claim 21, wherein the system is used for apartment-based high speed communications over the electrical network of a multi-level building.

23. The system according to claim 21, wherein the first interface of each host unit is coupled to the communications network via a connection device.

24. A method for providing communications network access over an electrical network of a building, comprising the steps of:

- (a) plugging a host unit to a first electrical socket of the building;
- (b) coupling the first electrical socket of the building to the electrical network of the building;
- (c) coupling a subscriber unit to the electrical network of the building;
- (d) coupling the host unit to a communications network; and
- (e) passing information between the communications network and the first subscriber unit via the electrical network of the building.

25. The method according to claim 24, wherein the step (e) includes the step of passing information, via the host unit, between the communications network and the first subscriber unit via the electrical network of the building.

26. The method according to claim 24, wherein the step (c) includes the step of plugging the subscriber unit into a second electrical socket that is coupled to the electrical network.

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27. The method according to claim 24, further comprising the steps of:

- (f) coupling another subscriber unit to the electrical network of the building; and
- (g) passing information under control of the host unit between the subscriber unit of step (f) and the subscriber unit of step (c) via the electrical network.